

CLAIMS

What is claimed is:

1. A method for managing on-demand resources in an automated storage library, comprising:
 - configuring a library with a plurality of removable serialized resources;
 - configuring at least one of the removable serialized resources for operation;
 - disabling operation of the remaining removable serialized resources;
 - restricting configuration access to the non-operational serialized resources;
 - initiating a request to make at least one of the non-operational serialized resource operational; and
 - in response to the request, providing configuration access to the at least one non-operational serialized resource whereby the at least one non-operational serialized resource is configurable for operation.
2. The method of claim 1, wherein:
 - configuring at least one of the removable serialized resources for operation comprises generating a list of removable serialized resources authorized to be used by the customer; and
 - providing configuration access to the at least one of the remaining removable serialized resources comprises adding the at least one of the remaining removable serialized resources to the list.
3. The method of claim 1, wherein:
 - configuring at least one of the removable serialized resources for operation comprises generating a list of removable serialized resources not authorized to be used by the customer; and

providing configuration access to the at least one of the remaining removable serialized resources comprises removing the at least one of the remaining resources from the list.

4. The method of claim 1, wherein the plurality of removable serialized resources comprise data storage frames.
5. The method of claim 1, wherein:
 - the plurality of removable serialized resources comprise data storage drives; and
 - configuring at least one of the removable serialized resources for operation comprises configuring a first plurality of data storage drives to permit read/write access to data storage media.
6. The method of claim 5, wherein:
 - the plurality of removable serialized resources comprise data storage drives; and
 - disabling operation of the remaining removable serialized comprises configuring the remaining data storage drives to prevent read/write access to data storage media.
7. The method of claim 1, wherein:
 - the plurality of removable serialized resources comprise a plurality of data storage cartridges;
 - configuring at least one of the removable serialized resources for operation comprises configuring a first plurality of data storage cartridges to permit read/write access; and
 - disabling operation of the remaining removable serialized comprises configuring remaining data storage cartridges to prevent read/write access.

8. The method of claim 7, wherein configuring the remaining data storage cartridges to prevent read/write access comprises modifying contents of a cartridge memory.
9. The method of claim 7, wherein configuring the remaining data storage cartridges to prevent read/write access comprises modifying contents of storage media within the data storage cartridges.
10. The method of claim 1, further comprising implementing a call-home function if the customer requests the use of at least one of the remaining resources.
11. The method of claim 1, further comprising implementing a heartbeat call-home function to determine if any of the at least one remaining resources is in use or missing without authorization.
12. A data storage library, comprising:
 - a plurality of removable serialized resources;
 - at least one data storage frame comprising a plurality of storage shelves for holding data storage cartridges;
 - at least one data storage drive for receiving a data storage cartridge and writing/reading data to/from media within the cartridge;
 - an accessor for transporting data storage cartridges between storage shelves and the at least one data storage drive; and
 - a processor programmed to execute instructions for:
 - configuring at least one of the removable serialized resources for operation;
 - disabling operation of the remaining removable serialized resources;
 - restricting configuration access to the non-operational serialized resources;
 - initiating a request to make at least one of the non-operational serialized resources operational; and

in response to the request, providing configuration access to the at least one non-operational serialized resource whereby the at least one non-operational serialized resource is configurable for operation.

13. The data storage library of claim 12, wherein:

the instructions for configuring at least one of the removable serialized resources for operation comprise instructions for generating a list of resources authorized to be used by the customer; and

the instructions for providing configuration access to the at least one of the remaining removable serialized resources comprise instructions for adding the at least one of the remaining removable serialized resources to the list.

14. The data storage library of claim 12, wherein:

the instructions for configuring at least one of the removable serialized resources comprise instructions for generating a list of removable serialized resources not authorized to be used by the customer; and

the instructions for providing configuration access to the at least one of the remaining removable serialized resources comprise instructions for removing the at least one of the remaining removable serialized resources from the list.

15. The data storage library of claim 12, wherein the processor is further programmed with instructions for implementing a call-home function if the customer requests the use of at least one of the remaining removable serialized resources

16. The data storage library of claim 12, wherein the processor is further programmed with instructions for implementing a heartbeat call-home function to determine if any of the at least one remaining removable serialized resources is in use or missing without authorization.

17. The data storage library of claim 12, wherein the removable serialized resources comprise at least one of the data storage frame, the data storage cartridges or the at least one data storage drive.
18. The data storage library of claim 12, wherein:
- the plurality of removable serialized resources comprise the data storage cartridges;
 - the instructions for configuring at least one of the removable serialized resources comprise instructions for configuring a first plurality of data storage cartridges to permit read/write access; and
 - the instructions for disabling operation of the remaining removable serialized comprise instructions for configuring remaining data storage cartridges to prevent read/write access.
19. The data storage library of claim 12, wherein:
- the plurality of removable serialized resources comprise the data storage cartridges; and
 - the instructions for configuring the remaining data storage cartridges to prevent read/write access comprise instructions for modifying contents of a cartridge memory.
20. The data storage library of claim 12, wherein:
- the plurality of removable serialized resources comprise the data storage cartridges; and
 - the instructions for configuring the remaining data storage cartridges to prevent read/write access comprise instructions for modifying contents of storage media within the data storage cartridge.
21. A computer program product of a computer readable medium usable with a programmable computer, the computer program product having computer-readable

code embodied therein for managing on-demand resources in an automated storage library, the computer-readable code comprising instructions for:

- configuring a library with a plurality of removable serialized resources;
- configuring at least one of the removable serialized resources for operation;
- disabling operation of the remaining removable serialized resources;
- restricting configuration access to the non-operational serialized resources;
- initiating a request to make at least one of the non-operational serialized resource operational; and
- in response to the request, providing configuration access to the at least one non-operational serialized resource whereby the at least one non-operational serialized resource is configurable for operation.

22. The computer program product of claim 21, wherein:

- the instructions for configuring at least one of the removable serialized resources for operation comprise instructions for generating a list of removable serialized resources authorized to be used by the customer; and

- the instructions for providing configuration access to the at least one of the remaining removable serialized resources comprise instructions for adding the at least one of the remaining removable serialized resources to the list.

23. The computer program product of claim 21, wherein:

- the instructions for configuring at least one of the removable serialized resources comprise instructions for generating a list of removable serialized resources not authorized to be used by the customer; and

- the instructions for providing configuration access to the at least one of the remaining removable serialized resources comprise instructions for removing the at least one of the remaining resources from the list.

24. The computer program product of claim 21, wherein the computer-readable code further comprises instructions for implementing a call-home function if the customer requests the use of at least one of the remaining removable serialized resources.

25. The computer program product of claim 21, wherein the computer-readable code further comprises instructions for implementing a heartbeat call-home function to determine if any of the at least one remaining removable serialized resources is in use or missing without authorization.